Avian Diseases Index, 2005

Author Index

A

Abdel-Alim, G. 99
Abreu, J. T. 500
Acosta, B. 167
Adams, Cary J. 601
Agnoletti, Fabrizio 298
Allison, A. B. 292
Al-Natour, M. Q. 99
Alvarado, I. R. 494
Ardans, Alex 189, 195
Ashraf, S. 99
Asrani, R. K. 274, 592

B

Bacon, Larry D. 214
Bailey, J. S. 155, 285, 577
Bano, Luca 298
Bauermeister, L. 118
Bearson, B. L. 147
Bearson, S. M. D. 147
Beasley, J. N. 551
Beck, Joan R. 81
Benčina, Duan 507
Bender, Jeff 252
Bennett, Richard S. 520
Berinstein, Analía 546
Bermudez, A. J. 592
Berry, D. E. 144
Bevensee, Erich 112
Bisgaard, M. 16
Bisgaard, Magne 534
Bisschop, S. P. R. 133
Bjerrum, L. 9
Blackall, P. J. 585
Boland, K. G. 144
Bolin, C. A. 144
Bouma, A. 540
Bourassa, D. V. 155, 285, 577
Boyle, Carolyn R. 63
Boyle, John A. 63
Branton, S. L. 147
Breitmeyer, Richard 189, 195
Bueno, Dante J. 588
Buhr, R. J. 155, 285, 577
Byrum, B. 207

C

Cai, Shu-Jun 177
Caldwell, D. J. 527
Callison, Scott, A. 159, 614
Campbell, James 189
Cardona, Carol J. 477
Carrillo, Elisa 546
Carroll, Larry 252
Case, J. T. 195
Castaño, María 606
Castellan, David M. 189
Castellano, J. 167
Castro, A. 167
Chadfield, M. S. 16
Chae, Joon-Seok 558
Chaoan, Xin 170
Charlton, B. 195
Charlton, Bruce R. 288
Chen, Huanchun 488
Cheng, An-chun 50
Cheng, Bi-Zhen 562
Cho, Mae-Rim 558
Christensen, H. 16
Christensen, J. P. 16
Church, S. V. 144
Clarke, K. R. 144
Colíndres, H. L. 585
Collett, S. R. 133
Collier, S. D. 147
Comin, Damiano 298
Cortes, P. L. 304
Cosby, D. E. 155, 285, 577
Cox, N. A. 155, 285, 577
Cray, P. F. 155
Cui, Xiaoping 199

D

Dalloul, Rami A. 1
Davis, Meredith 30
Dearth, R. 207
Deng, Rui-Guang 177
Desai, Atul R. 558
Deshmukh, S. 274, 592
de Wit, J. J. 260, 540
Dey, Sohini 56
Ding, Xicheng 112
Dozier, W. A. III 147
Duhamel, G. E. 609
Dykstra, C. C. 92

E

Eo, Seong-Kug 558
Engberg, R. M. 9
Espinosa de los Monteros, A. 167
Evans, J. D. 147
Ewald, S. J. 482
Ewers, Christa 269

F

Fadly, Aly M. 214
Farmer, K. 92
Feberwee, A. 260
Feldman, Sanford H. 601
Fernández, R. P. 585
Filigenzi, Michael S. 288
Fischer, John R. 159
Fitzgerald, S. D. 144
Fuller, Susan 252

G

García, Maricarmen 43, 125, 238
Gerhold, Richard W. 164
Giambrone, J. J. 281
Girshick, Theodore 227
Gomes, A. D. 500
González-Huecas, Marta 606
Gottdenker, N. L. 292
Gunn, K. S. 281
Guo, F. C. 70
Guo, Jun-Qing 177

H

Hafez, Hafez M. 574
Halvorson, David A. 520
Han, Xiao-ying 50
Hangberg, Kurt J. 534
Hartman, E. G. 260
Hattey, J. A. 144
Herráez, P. 167
Hietala, S. K. 195
Hiett, K. L. 155, 285
Hilt, Deborah A. 159, 614
Hoerr, F. J. 92, 118, 482
Hofacre, C. L. 155
Hofacre, Charles L. 24
Höfle, Ursula 606
Holt, P. S. 155
Hong, Yang 43
Hsu, Hsiao W. 36
Huang, Pi. H. 36
Huberman, Yosef D. 588
Huff, G. R. 551
Huff, W. E. 551
Hullinger, P. J. 195
Hume, Michael E. 74
Hunt, Henry D. 199

I

Ikuta, Nilo 125
Imada, Tadao 582
Imai, Kunitoshi 582
Ismail, M. M. 182

J

Jaber, J. R. 167
Jackwood, D. J. 220, 246
Jackwood, M. W. 494
Jackwood, Mark W. 159, 614
Janen, Traute 269
Jin, Meilin 488
Jindal, N. 274, 592
Jinding, Chen 170
Johnson, M. G. 551
Joiner, K. S. 482
Jones, Lana S. 63
Juhl-Hansen, J. 16

K

Kabel, Susanne 534
Kaneene, J. B. 144
Kapczynski, Darrell 86
Kerr, David, 189
Khan, Mazhar I.
Kieling, Sabine 269
Kinde, Hailu 189, 195
Kiupel, M. 304
Kleven, S. H. 125
Kleven, Stanley H. 43
Koga, Ysabel 108
Kong, Ling-Hong 562
Kraemer, Ch. 231
Krehling, J. 118
Kumanan, K. 56
Kusk, Mette 534
Kwakkel, R. P. 70
Kwon, Hyuk Moo 614

L

Lam, K. M. 147
Lavrič, Miha 507
Ledoux, D. R. 274, 592
Lee, C. W. 207
Lee, Chang-Won 614
Lee, John-Hwa 558
Lee, Long H. 36
Lee, Lucy F. 199
Lee, Mi-Jin 558
Leiting, Victoria 43
Levisohn, Sharon 43, 125, 238
Ley, David H. 43
Li, Hongchao 488
Li, Kang-Sheng 562
Li, Qing-Mei 177
Li, W. K. 70
Li, Xue-Wu 177
Li, Yao-Chen 562
Li, Ying-Hua 558
Liao, Yong-hong 50
Lierz, Micheal 574
Lillehoj, Erik P. 112
Lillehoj, Hyun S. 1, 112
Liu, Fei 50
Liu, Hung J. 36
Liu, Lingeng 74
Locy, R. D. 281
Lopes, Vanessa C. 520
Lott, B. D. 147
Luo, Yan 63
Lupiani, Blanca, 199
Lysnyansky, Inna 43, 238

M

Martins, N. R. S. 500
Mase, Masaji 582
Matthijs, M. G. R. 540
Mays, Jody K. 214
Mazaheri, Atoussa 574
McComb, Brian 520
McDougald, L. R. 462
McElroy, A. P. 527
McFarland, M. 195
McKee, S. 118
Mekkes, D. R. 260
Mikolon, A. B. 195
Ming, Liao 170
Mohan, C. Madhan 56
Montgomery, Roy D. 63
Montiel, E. 231
Moore, Kristi M. 614
Morishita, Teresa Y. 30, 104
Moscoso, Hugo 24, 614
Mossos, N. 494
Murgia, M. V. 514
Murray, Suzan Z. 309
Musgrove, M. T. 155, 577
Mutinelli, Franco 298

N

Nagaraja, Kakambi V. 520
Nakamura, Kikuyasu 582
Nannapaneni, R. 551
Narat, Mojca 507
Natale, Alda 298
Nersessian, Bedros 104
Novak, C. L. 527

O

Orndorff, B. W. 527

P

Pandiri, Arun R. 214
Park, Jin-Ho 558
Pedersen, K. 9
Perdue, M. 92, 118
Pereda, Ariel 546
Perez, D. L. 207
Pharr, G. T. 147
Philipp, Hans-C. 269
Pierson, F. W. 527
Pijpers, A. 260
Pillai, Suresh D. 74
Pizarro, Manuel 606
Price, S. B. 118
Puschner, Birgit 288

Q

Quiroz, Marco A. 112

R

Rath, N. C. 551
Rautenschlein, S. 231
Raybon, Erine O. 24
Reddy, Sanjay M. 199
Redig, Pat 252
Redondo, R. A. F. 500
Reed, Willie M. 199
Resende, J. S. 500
Resende, M. 500
Richardson, L. J. 155, 285, 577
Roberts, S. R. 92
Rocke, Tonie E. 301
Rodríguez, F. 167
Rodríguez-Bertos, Antonio 606
Rottinghaus, G. E. 274, 592
Roush, W. B. 147

S

Saggese, Miguel 252
Saif, Y. M. 99, 182, 207, 514
Sanchez, Carlos R. 309
Sarver, Craig F. 104
Savelkoul, Paul 43
Sellers, Holly 86, 614
Senne, D. A. 207
Senties-Cué, G. 304
Shah, Devendra H. 558
Sharma, M. 274, 592
Shaw, Daniel 520
Shivaprasad, H. L. 304, 609
Shivers, Jan 252
Shringi, Smriti 558
Singh, N. K. 281
Singh, S. P. 274, 592
Siragusa, G. R. 285
Sleeman, Jonathan M. 601
Smith, H. V. 138
Smith, Susan R. 301
Sommer, S. E. 246
Sommer-Wagner, S. E. 220
Soriano, V. E. 585
Spackman, Erica 86
Stallknecht, D. E. 292
Stegeman, J. A. 540
Su, Hung Y. 36
Suo, X. 70
Swayne, David E. 81

T

Taboga, Oscar 546
Tang, Y. 182, 207, 514
Tanimura, Nobuhiko 582
Tankson, J. D. 155
Tao, Ren 170
Terzolo, Haracio R. 588
Thayer, Stephan G. 24, 614
Thomson, D. K. 133
Tiwary, Asheesh K. 288
Toro, H. 92, 118, 482
Trampel, Darrell W. 301
Tsukamoto, Kenji 582

V

van Eck, J. H. H. 540
van Santen, V. L. 482
Vanmarcke, J. 231
van Wettere, Arnaud 252
Vascellari, Marta 298
Vaughn, L. E. 155
Velásquez, Q. E. 585
Velayudhan, Binu T. 520
Velez, V. 195
Verstegen, M. W. A. 70
Villegas, P. 494
Vizzier, Y. L. 155

W

Wainwright, S. H. 195
Wang, Guihua 488
Wang, Ming-shu 50
Wieler, Lothar H. 269
Williams, B. A. 70
Williams, Y. 281
Wilson, J. L. 155, 285, 577
Wood, A. M. 138
Woolcock, Peter R. 477
Wu, H. 281
Wünschmann, Arno 252

X

Xiao, Zhi-Jun 177
Xie, Zhiqin 227
Xie, Zhixun 227
Xing, Guang-Xu 177
Xu, Chao 50

Y

Yamaguchi, Shigeo 582
Yang, Ji-Fei 177
Yang, Yan-Yan 177
York, D. 133
Yuan, Gui-ping 50

Z

Zang, Wei-Min 177
Zanetti. Flavia 546
Zavaleta, Amparo I. 108
Zhang, Gai-Ping 177
Zhang, Ruihua 488
Zhang, Y. 207
Zhao, Dong 177
Zhao, Siting 488

Subject Index, 2005

A

Accipiter cooperii
West Nile virus antibodies, 371
Accipiter gentilis
West Nile virus infection, 252
adenocarcinoma
in lungs of older layers, 430
adenovirus
proventriculitis, 344
air quality
in commercial layer facilities, 30
N-alkyl dimethyl benzyl ammonium chloride
protection from *Avibacterium paragallinarum,* 588
alternative therapies
effect of capsaicin on *Salmonella* infections, 527
ammonia concentrations
in commercial layer facilities, 30
amplified fragment length polymorphism
Mycoplasma gallisepticum strain differentiation, 43
Anas platyrhynchos
infection with *Riemerella anatipestifer*, 104
resistance to *Mycobacterium bovis*, 144
antibiotics
subtherapeutic doses and AI-2, 74
antigen capture immunoassay
comparison of methods for influenza A, 477
antigen capture reverse transcription–polymerase chain reaction test
detection of turkey astrovirus, 182
antimicrobial resistance
in *Escherichia coli* strains, 409
antimicrobials
effect on enterococci growth, 361
Argentina
Avibacterium paragallinarum serovars, 588
Aspergillus fumigatus
associated with omphalitis in poults, 304
Aspergillus sp.
in Micronesian kingfisher, 309
astrovirus, turkey
detection with real-time reverse transcription–polymerase chain reaction, 86
molecular characterization of capsid gene, 514
autoinducer-2
and antibiotic exposure, 74
avian botulism
in capons, 301
neurotoxin production, 376
avian encephalomyelitis virus
detection using RT-PCR, 227
avian influenza virus
antibodies to nonstructural protein NS1, 488
inhibition of multiplication by siRNA, 562
pathogenicity of H5N1, 582
presence in breast and thigh meat, 81
public health risk, 317
siRNA expression vectors, 562
transmission to humans, 317
avian influenza virus H5N1
epidemiology and pathology, 436
immunohistochemistry, 436
in layer hens in Japan, 436
avian influenza virus type A
comparison of immunoassay kits, 477
H3N2 from turkeys, 207
avian leukosis virus, subgroup J
response in white leghorns, 214
avian metapneumovirus
virulent type C, 520
avian poxvirus
in Virginia, 601
phylogenetic analysis, 601
avian reovirus
P10- and P17-encoding genes, 36
sigma C protein-induced immunity, 281
Avibacterium paragallinarum
protection conferred by disinfectant, 588
protection conferred by infectious coryza bacterins, 585
serovars in Argentina, 588

B

B haplotypes
response to avian leukosis virus J, 214
bacteriophages
use against *Salmonella* infections, 118
blackhead
control with Natustat™, 423
in turkeys, 328
review, 462
botulism
in capons, 301
neurotoxin production, 376
Brachyspira pilosicoli
cause of spirochetosis in turkeys, 609>
broiler breeders
oral infection with chicken anemia virus, 482
presence of bacteria in ovarian follicles, 285
recovery of *Campylobacter jejuni*, 577
response to *Mycoplasma gallisepticum* vaccination, 133
broilers
effect of capsaicin in diet on *Salmonella* infections, 527
epidemiology of *Campylobacter* spp., 390
gut flora and diet, 9
outbreaks of *Enterococcus hirae*, 16
presence of *Campylobacter jejuni* in organs after inoculation, 155
proventriculitis, 344, 352
Salmonella infections and diet, 9
Bubo virginianus
West Nile virus, 252, 371
Buteo jamaicensis
West Nile virus antibodies, 371

C

Cairina moschata domesticus
esophagitis caused by *Streptocara incognita*, 298
California
exotic Newcastle disease, 195
Campylobacter jejuni
presence in organs after inoculation, 155
recovery from broiler breeders, 577
Campylobacter spp.
epidemiology in Switzerland, 390
in ovarian follicles of broiler breeders, 285
capons
botulism, 301
capsaicin
effect on *Salmonella* infections in broilers, 527
capsid gene
molecular characterization in turkey astroviuses, 514
characterization
chicken anemia virus, 446
chemotaxis
in *Mycoplasma gallisepticum*, 152
chicken anemia virus
ineffectiveness of major histocompatibility *B* complex, 482
isolation and characterization in Nigeria, 446
oral infection in broiler breeders, 482

chicken embryo fibroblast culture
pathogenicity of Newcastle disease virus, 56
chicken meat
presence of avian influenza viruses, 81
chickens
bacteriophages against *Salmonella*, 118
detection of *Mycoplasma gallisepticum*, 125
mild and pathogenic strains of infectious bursal disease virus, 99
presence of pigeon paramyxovirus-1 in, 92
use of competitive exclusion against *Salmonella*, 118
chicks, newly hatched
immunity to *Eimeria maxima*, 426
China
paramyxovirus in geese, 170
circovirus
identification by PCR, 340
cloned genes
use in immunization for coccidiosis, 112
Clostridium botulinum
in capons, 301
neurotoxin production, 376
Clostridium colinum
ulcerative enteritis in lories, 606
Clostridium perfringens
effect of diet on infection, 9
coccidiosis
effect of mushrooms and herbs on immunity, 70
immunomodulation, 1
in ovo DNA vaccination, 112
resistance following various treatments, 112
treatment advances, 1
vaccination, 1
colibacillosis
predisposition after infectious bronchitis virus vaccination, 540
Colombia
infectious bronchitis strains, 494
colonic spirochetosis
caused by *Brachyspira pilosicoli*, 609
Columba livia f. *domestica*
outbreak of mycobacteriosis, 442
commercial layer facilities
air quality, 30
competitive exclusion
and use of bacteriophages against *Salmonella*, 118
Cooper's hawk
West Nile virus antibodies, 371
core 4b gene
phylogenetic analysis of avian poxvirus, 601
coronavirus, turkey
detection with real-time reverse transcription–polymerase chain reaction, 86
Coturnix coturnix japonica
effect of fumonisin B_1 on *Salmonella* infection in liver, 592
culture
methods for detection of *Mycoplasma* infections, 260

D

Dermanyssus gallinae
role in spread of *Erysipelothrix rhusiopathiae*, 574
diagnostic test
for pigeon circovirus, 340
infectious bursal diseases, 177
turkey astrovirus, 182
diet
effect of whole wheat on broilers, 9
Directogen Flu A
comparison with other detection methods, 477
double-crested cormorants
West Nile and Newcastle disease virus, 292
drag swabs
detection of *Salmonella* Enteritidis, 418
monitoring for salmonellae, 189
duck enteritis
real-time polymerase chain reaction test, 397
duck enteritis virus
morphogenetic studies, 50
dust concentration
in commercial layer facilities, 30

E

eastern screech owl,
occurrence of malaria, 433
eggs
contamination by *Salmonella*, 382
Eimeria acervulina
cloned 3-1E gene in immunization, 112
Eimeria maxima
immunity in chicks, 426
Eimeria spp.
host immunity, 1
immunomodulation, 1
treatment advances, 1
vaccination, 1
electron microscope
studies of duck enteritis, 50
use to detect chemotaxis in *Mycoplasma gallisepticum*, 152
elongation factor Tu
in *Mycoplasma* spp., 507
embryo lethality
E. coli and *in vitro* attributes, 63
endocarditis
caused by *Enterococcus hirae*, 16
Enterococcus hirae
outbreaks in broilers, 16
Enterococcus spp.
and growth promotants, 361
enzyme-linked immunosorbent assay
detection of turkey astrovirus, 182
epidemiology
of avian influenza H5N1, 436
of *Campylobacter* spp., 390
of histomoniasis, 462
Erysipelothrix rhusiopathiae
pathogenicity in layers, 574
Escherichia coli
biochemical profiles and lethality, 63
characterization of *ipaH*+, 409
embryo lethality, 63
levels in commercial layer facilities, 30
rapid detection by multiplex polymerase chain reaction, 269
subtherapeutic antibiotic exposure, 74
Escherichia fergusonii
cause of fibrino-necrotic typhlitis, 167
esophagitis, parasitic
in Muscovy ducks, 298

F

fecal shedding
of *Salmonella* in layers, 382
feces
presence of *Campylobacter jejuni*, 577
Florida Keys
West Nile and Newcastle disease virus in cormorants, 292
FLU OIA
comparison with other detection methods, 477
food safety
contamination of eggs with *Salmonella*, 382
Listeria monocytogenes Scott A in turkeys, 551

presence of avian influenza virus in chicken meat, 81
foodborne human pathogens
Campylobacter jejuni in organs after inoculation, 155
fowlpox virus
characterization of field isolate, 401
FTA® filter paper
storage of infectious bronchitis virus, 24
fumonisin B_1
effect on Japanese quail liver, 592
effect on *Salmonella* Gallinarum in quail, 274
effect on *Salmonella* Gallinarum infection, 592
Fusarium moniliforme culture medium
effect on Japanese quail liver, 592
effect on *Salmonella* Gallinarum in quail, 274
effect on *Salmonella* Gallinarum infection, 592
fusion protein gene
changes in Newcastle disease virus, 56

G

geese
source of paramyxovirus, 170
genetic characterization
H3N2 influenza A virus in turkeys, 207
genetic variability
of *Ornithobacterium rhinotracheale*, 108
genotyping
of infectious bursal disease virus strains, 500
goshawks
West Nile virus infection, 252
great horned owls
West Nile virus infection, 252, 371
growth promotants
effect on enterococci, 361

H

H5N1
pathogenicity of avian influenza isolates, 582
Haemophilus paragallinarum
protection conferred by disinfectant, 588
protection conferred by infectious coryza bacterins, 585
serovars in Argentina, 588
Halcyon cinnamomina cinnamomina
aspergillosis in, 309
hammerhead ribozyme
targets infectious bronchitis virus nucleocapsid mRNA, 159
hemagglutinin VlhA
in *Mycoplasma* spp., 507
herb extracts
effect on immunization, 70
Heterakis gallinarum
role in histomoniasis, 462
hexamitiasis
in ring-neck pheasants, 138
Histomonas meleagridis
comparison of diagnostic tests, 366
control with Natustat™, 423
review, 462
transmission in turkeys, 328
histomoniasis
review, 462

I

immune responses
effect of mushrooms and herbs, 70
immunity
to avian reovirus by sigma C protein, 281
immunization
effect of polysaccharides on, 70
immunomodulation
against coccidiosis, 1
in ovo DNA vaccination
for coccidiosis, 112
infectious bronchitis virus
hammerhead ribozyme targets nucleocapsid mRNA, 159
molecular typing, 614
strains from Colombia, 494
use of FTA filter paper in storage of, 24
infectious bronchitis virus H120
effectiveness as a vaccine, 540
predisposition to colibacillosis, 540
infectious bronchitis virus, virulent Massachusetts-type
effectiveness of IBV H120 vaccine, 540
infectious bursal disease virus
detection in lymphoid tissues, 534
diagnostic test, 177
genotypes, 332
in Spain, 332
interaction of mild and pathogenic strains, 99
intermediate and intermediate plus strains, 231
newly emerging strains, 220
restriction fragment length polymorphism analysis, 500
vaccines against very virulent strain, 231
VP1, *VP2*, and *VP3* genes, 500
infectious bursal disease virus, very virulent
molecular genome studies, 246
infectious coryza bacterins
protection conferred against *Avibacterium paragallinarum*, 585
interleukin
immunization in combination with 3-1E gene, 112
intestinal flora
effect of whole wheat diet, 9

J

Japan
avian influenza H5N1, 436
pathogenicity of avian influenza H5N1, 582
Japanese quail
effect of fumonisin B_1 on *Salmonella* infection in liver, 592
Salmonella Gallinarum infections, 274

L

lactate dehydrogenase
in *Mycoplasma* spp., 507
lateral transmission
of *Histomonas meleagridis*, 328
layers
avian influenza H5N1, 436
Erysipelothrix rhusiopathiae infection, 574
metastatic adenocarcinoma in lungs, 430
monitoring for salmonellae, 189
self-propelled vaccinator, 147
Listeria monocytogenes Scott A
respiratory infection in turkeys, 551
lories
ulcerative enteritis, 606
lymphoid tissue
detection of infectious bursal disease virus, 534

M

major histocompatibility *B* complex
ineffective against chicken anemia virus, 482
malaria
in Eastern screech owl, 433
mallard ducks
resistance to *Mycobacterium bovis*, 144

Marek's disease virus
very virulent plus strain, 199
vIL-8 deletion mutant, 199
maternally derived antibodies
effect on infectious bursal disease vaccines, 231
Meleagris gallopavo
tuberculosis in, 164
Mexico
protection conferred against *Avibacterium paragallinarum*, 585
mgc2 gene,
use in differentiating *Mycoplasma gallisepticum*, 238
Micronesian kingfisher
aspergillosis in, 309
Minnesota
avian metapneumovirus virulent type C, 520
molecular characterization
infectious bronchitis strains, 494
of capsid gene in astrovirus, 514
molecular epidemiology
of infectious bursal disease viruses, 220
molecular typing
infectious bronchitis virus, 614
morphogenesis
duck enteritis virus, 50
mourning doves
Trichomonas gallinea infections, 387
Muscovy ducks
esophagitis caused by *Streptocara incognita*, 298
mushroom extracts
effect on immunization, 70
Mycobacterium avium
in domestic pigeons, 442
in wild turkey, 164
Mycobacterium bovis
resistance in mallards, 144
Mycoplasma gallisepticum
chemotaxis in, 152
comparison of different detection methods, 260
detection with polymerase chain reaction, 125
differentiation between field isolates and vaccine strains, 238
response to vaccination with ts-11 strain, 133
shares epitopes with *M. imitans*, 507
strain differentiation, 43
use of *mgc2*-pPCR-RFLP for differentiation, 238
use of self propelled spray vaccinator, 147
Mycoplasma imitans
shares epitopes with *M. gallisepticum*, 507
Mycoplasma synoviae
comparison of different detection methods, 260

N

Natustat™
control of *Histomonas meleagridis*, 423
neoplasia
adenocarcinoma in layers, 430
nested polymerase chain reaction
diagnosis of histomoniasis, 366
neurotoxins
production in botulism, 376
Newcastle disease virus
changes in fusion protein gene, 56
changes in pathogenicity, 56
molecular characterization of isolate from wild birds, 546
phylogenetic analysis of isolates from wild birds, 546
Newcastle disease virus, exotic
in southern California chickens. 195
isolation in nonpoultry species, 195
Newcastle disease virus, neurotropic velogenic
in double-crested cormorants, 292
Nigeria
chicken anemia virus, 446
nonpoultry avian species
exotic Newcastle disease, 195
nonstructural protein (NS1)
antibodies in AIV vaccinated and infected chickens, 488
NOW FLU A
comparison with other detection methods, 477
nucleocapsid mRNA
target of hammerhead ribozyme,159
nucleotide sequences
avian reovirus P10- and P17-encoding genes, 36

O

omphalitis
associated with *Aspergillus fumigatus*, 304
Ornithobacterium rhinotracheale
variability in commercial birds in Peru, 108
ostriches
fibrino-necrotic typhlitis, 167
Otus asio
occurrence of malaria, 433

P

P10 and P17 proteins
sequencing and phylogenetic analysis, 36
pandemic
avian influenza viruses, 317
paramyxovirus, pigeon
in association with other pathogens, 92
in chickens and wild birds, 92
in geese in China, 170
pathogenicity
avian metapneumovirus virulent type C, 520
changes in Newcastle disease virus, 56
of *Erysipelothrix rhusiopathiae* in layers, 574
Pekin ducks
infection with *Riemerella anatipestifer*, 104
Peru
Ornithobacterium rhinotracheale in various birds, 108
Phalacrocorax auritus
West Nile and Newcastle disease virus, 292
Phasianus colchicus
in ring-neck pheasants, 138
phylogenetic analysis
avian reovirus P10- and P17-encoding genes, 36
pigeon circovirus
polymerase chain reaction test, 340
pigeon, domestic
outbreak of mycobacteriosis, 442
pigeon paramyxovirus-1
association with other pathogens, 92
presence in wild birds, 92
Plasmodium subpraecox, 433
in eastern screech owl, 433
poisoning
zinc phosphide in chickens, 288
polymerase chain reaction
circovirus identification, 340
detection of avian pathogenic *Escherichia coli*, 269
detection of *mcg2*, LP and *gap*A proteins, 125
detection of *Salmonella* Enteritidis, 418
for histomoniasis, 366
for *Salmonella* Pullorum, 558
methods for detection of *Mycoplasma* infections, 260
use in detection of *Mycoplasma gallisepticum*, 125
use in differentiating *Mycoplasma gallisepticum*, 238
poult enteritis complex
detection of turkey astrovirus, 182

detection with real-time reverse transcription–polymerase chain reaction, 86
prophylactic use
of capsaicin on *Salmonella* infections, 527
protection efficiency
Marek's disease virus vIL-8 deletion mutant, 199
proventriculitis
characterization of virus, 344
reproduction in chickens, 352
public health
risk of avian influenza, 317
pullorum disease
polymerase chain reaction assay, 558
pyruvate dehydrogenase Pdha
in *Mycoplasma* sp., 507

Q

quail disease
in lories, 606
QuickVue Influenza test
comparison with other detection methods, 477

R

rapid diagnostic strip
test for infectious bursal disease. 177
raptors
West Nile virus antibodies, 371
real-time polymerase chain reaction
diagnosis of histomoniasis, 366
for duck enteritis, 397
real-time reverse transcription–polymerase chain reaction
detection of poult enteritis, 86
recombinant virus
Marek's disease virus vIL-8 deletion mutant, 199
red poultry mite
role in spread of *Erysipelothrix rhusiopathiae*, 574
red-tailed hawks,
West Nile virus antibodies, 371
reovirus, turkey
detection with real-time reverse transcription–polymerase chain reaction, 86
respiratory infections
Listeria monocytogenes Scott A in turkeys, 551
restriction fragment length polymorphism analysis
of infectious bursal disease virus, 500
use in differentiating *Mycoplasma gallisepticum*, 238
reticuloendotheliosis
sequence lacking in fowlpox virus isolate, 401
reverse transcription–polymerase chain reaction test
detection of infectious bursal disease virus, 534
detection of turkey astrovirus, 182
for detection of avian encephalomyelitis virus, 227
molecular typing of infectious bronchitis virus, 614
*rfb*S gene
use in allele-specific PCR test for *Salmonella* Pullorum, 558
Riemerella anatipestifer
infection in Pekin ducks, 104
pathogenesis in Pekin ducks, 104
ring-neck pheasants
spironucleosis, 138
RNA
molecular studies of infectious bursal disease viruses, 246
RNA interference
inhibits multiplication of influenza virus, 562

S

Salmonella enterica
monitoring flocks, 189
Salmonella Enteritidis
detection using drag swab samples, 418
detection with PCR assay, 418
egg contamination in layers, 382
fecal shedding, 382
monitoring flocks, 189
Salmonella Gallinarum
effects of fumonisin B_1 in Japanese quail, 274, 592
Salmonella Heidelberg
effect of capsaicin in diet of broilers, 527
egg contamination in layers, 382
fecal shedding, 382
Salmonella Pullorum
polymerase chain reaction assay, 558
Salmonella sp.
addition of capsaicin to diet, 527
in ovarian follicles of broiler breeders, 285
levels in commercial layer facilities, 30
use of bacteriophages against, 118
Salmonella Typhimurium
effect of diet on infection, 9
semen
presence of *Campylobacter jejuni*, 577
septicemia
caused by *Enterococcus hirae*, 16
sequencing
H3N2 influenza A virus in turkeys, 207
serologic test
methods for detection of *Mycoplasma* infections, 260
serotyping
infectious bronchitis virus, 24
sigma C protein-induced immunity
against avian reovirus, 281
small interfering RNA
inhibits multiplication of influenza virus, 562
Spain
infectious bursal disease virus genotypes, 332
spirochetosis
caused by *Brachyspira pilosicoli*, 609
spironucleosis
in ring-neck pheasants, 138
Spironucleus meleagridis
in ring-neck pheasants, 138
storage
of infectious bronchitis specimens, 24
strain differentiation
Mycoplasma gallisepticum, 43
strain identification
Mycoplasma gallisepticum, 43
Streptocara incognita
esophagitis in Muscovy ducks, 298
Struthio camelus
fibrino-necrotic typhlitis, 167
Switzerland
epidemiology of *Campylobacter* spp., 390

T

tetracycline
subtherapeutic levels and AI-2, 74
TIMSEN™
protection from *Avibacterium paragallinarum*, 588
toxicity
zinc phosphide in chickens, 288
transmission
proventriculitis in broilers, 352
transportation
of infectious agents, 24
Trichomonas gallinea
infections in mourning doves, 387
seasonal variation in doves, 387
tuberculosis
in wild turkey, 164

turkey astrovirus
detection, 182
enzyme-linked immunosorbent assay, 182
molecular characterization of capsid gene, 514
reverse transcription–polymerase chain reaction test, 182
turkeys
avian metapneumovirus virulent type C, 520
control of blackhead, 423
H3N2 influenza A virus, 207
Listeria monocytogenes Scott A, 551
spirochetosis caused by *Brachyspira pilosicoli*, 609
transmission of *Histomonas meleagridis*, 328
turkeys,wild
tuberculosis in, 164
typhlitis
in ostriches caused by *Escherichia fergusonii*, 167

U

ulcerative enteritis
in lories, 606
United States
new strains of infectious bursal disease viruses, 220

V

vaccination
against coccidiosis, 1
detection of antibodies to nonstructural protein NS1 of AIV, 488
effectiveness of infectious bronchitis virus H120, 540
immunity to *Eimeria maxima*, 426
prevention of avian influenza viruses in meat, 81
response to *Mycoplasma gallisepticum* ts-11 strain, 133
self-propelled spray vaccinator, 147
vaccines
for very virulent infectious bursal disease virus, 231
potential of fowlpox virus isolate, 401
vertical transmission
E. coli and embryo lethality, 63
viral interference
between different infectious bursal disease virus strains, 99
Virginia
avian poxviruses in wild birds, 601
virulence factors
in *Escherichia coli* strains, 409
virulence gene
detection of *Escherichia coli*, 269
VP1, *VP2*, and *VP3* genes
genotyping of infectious bursal disease virus strains, 500
VP2 gene
in very virulent infectious bursal disease virus samples, 246
primers in detection of avian encephalomyelitis virus, 227

W

waterfowl
as reservoir for Newcastle disease virus, 546
West Nile virus
in double-crested cormorants, 292
in goshawks and great horned owls, 252
in wild raptors, 371
white leghorns
response of *B* haplotypes to avian leukosis virus, 214
wild birds
analysis of avian poxvirus, 601
Newcastle diseases virus isolates, 546
wintering
of viruses in cormorants in Florida keys, 292

Y

yeast vaccine
to avian reovirus, 281
yolk sac infection
and *Escherichia coli* strains, 409

Z

Zenaida macroura
Trichomonas gallinea infections, 387
zinc phosphide poisoning
diagnosis in chickens, 288
Zstat Flu
comparison with other detection methods, 477